LISTING OF CLAIMS:

Claim 1 (original): A cooling subsystem including a coolant and a circulation loop wherein:

said coolant comprises a mixture of water and a glycol solvent; and

said circulation loop comprises an ion exchange unit.

Claim 2 (original): The cooling subsystem of claim 1 wherein said coolant consists of a mixture of water and said glycol solvent.

Claim 3 (original): The cooling subsystem of claim 1 wherein said ion exchange unit comprises an acidic cation resin.

Claim 4 (original): The cooling subsystem of claim 1 wherein said ion exchange unit comprises an alkaline anion resin.

Claim 5 (original): The cooling subsystem of claim 1 wherein said ion exchange unit comprises an acidic cation resin and an alkaline anion resin.

Claim 6 (original): The cooling subsystem of claim 1 wherein the temperature of said coolant mixture in said circulation loop is less than 100°C.

Claim 7 (original): The cooling subsystem of claim 1 wherein said coolant comprises about 50% water and 50% glycol solvent by volume.

Claim 8 (original): The cooling subsystem of claim 1 wherein said glycol solvent is propylene glycol or ethylene glycol.

Claim 9 (original): The cooling subsystem of claim 1 wherein the electrical conductivity of said coolant is less than 50 μS/cm.

Claim 10 (Currently amended): ~~**The use of the cooling subsystem of claim 1 in a**~~ **A** fuel cell system **comprising the cooling subsystem of claim 1**.

Claim 11 (Currently amended): ~~**The use of the cooling subsystem of claim 1 in a**~~ **A** fuel cell powered vehicle **comprising the cooling subsystem of claim 1**.

Claim 12 (withdrawn): A liquid-cooled fuel cell system including a fuel cell stack and a cooling subsystem for cooling the fuel cell stack, the cooling subsystem including a liquid coolant and a circulation loop for circulating the liquid coolant in thermal contact with fuel cells in the stack, and the liquid coolant including a glycol solvent, wherein: the liquid coolant is characterized by a conductivity less than about 50 μS/cm; and the cooling subsystem additionally comprises means for maintaining the purity of the liquid coolant such that the conductivity of the liquid coolant is less than about 50 μS/cm.

Claim 13 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the fuel cell stack is a solid polymer fuel cell stack.

Claim 14 (withdrawn): The liquid-cooled fuel cell system of claim 13 wherein the solid polymer fuel cell stack comprises membrane electrode assemblies in contact with the liquid coolant in the circulation loop.

Claim 15 (withdrawn): The liquid-cooled fuel cell system of claim 13 wherein the solid polymer fuel cell stack operates at temperatures less than 100°C.

Claim 16 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the means for maintaining the purity of the liquid coolant comprises an ion exchange resin unit in the circulation loop of the cooling subsystem.

Claim 17 (withdrawn): The liquid-cooled fuel cell system of claim 16 wherein the ion exchange resin unit employs an hydroxyl type 2 strong base anion resin.

Claim 18 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the liquid coolant is characterized by a conductivity less than about 5 μS/cm and the cooling subsystem additionally comprises means for maintaining the purity of the liquid coolant such that the conductivity of the liquid coolant is less than about 5 μS/cm.

Claim 19 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the glycol solvent is selected from the group consisting of ethylene glycol, propylene glycol, polyethylene glycol, and polypropylene glycol.

Claim 20 (withdrawn): The liquid-cooled fuel cell system of claim 19 wherein the glycol solvent is ethylene glycol.

Claim 21 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the liquid coolant additionally comprises water.

Claim 22 (withdrawn): The liquid-cooled fuel cell system of claim 21 wherein the glycol solvent to water ratio in the liquid coolant is about 1:1.

Claim 23 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the liquid coolant is in electrical contact with fuel cells in the fuel cell stack.

Claim 24 (withdrawn): The liquid-cooled fuel cell system of claim 23 wherein the fuel cell stack is capable of operation at voltages greater than about 50 volts.

Claim 25 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the liquid coolant in the circulation loop is essentially isolated from air.

Claim 26 (withdrawn): The liquid-cooled fuel cell system of claim 12 wherein the circulation loop comprises aluminum hardware exposed to the liquid coolant.

Claim 27 (withdrawn): A method of providing antifreeze and corrosion protection for a fuel cell system, the fuel cell system including a fuel cell stack and a cooling subsystem for cooling the fuel cell stack, and the cooling subsystem including a liquid coolant and a circulation loop for circulating the liquid coolant in thermal contact with fuel cells in the stack, wherein the method comprises:

lowering the freezing temperature of the liquid coolant by incorporating a glycol solvent in the liquid coolant, wherein the liquid coolant is characterized by a conductivity less than about 50 μS/cm; and

maintaining the purity of the liquid coolant in the cooling subsystem such that the conductivity of the liquid coolant remains less than about 50 μS/cm.

Claim 28 (withdrawn): The method of claim 27 wherein the fuel cell stack is a solid polymer fuel cell stack.

Claim 29 (withdrawn): The method of claim 27 wherein the liquid coolant is circulated through an ion exchange resin unit in the circulation loop of the cooling subsystem.

Claim 30 (withdrawn): The method of claim 29 wherein the ion exchange resin unit employs an hydroxyl type 2 strong base anion resin.

Claim 31 (withdrawn): The method of claim 27 wherein the liquid coolant is characterized by a conductivity less than about 5 μS/cm and the purity of the liquid coolant in the cooling subsystem is maintained such that the conductivity of the liquid coolant remains less than about 5 μS/cm.

Claim 32 (withdrawn): The method of claim 27 wherein the glycol solvent used in the liquid coolant is selected from the group consisting of ethylene glycol, propylene glycol, polyethylene glycol, and polypropylene glycol.

Claim 33 (withdrawn): The method of claim 32 wherein the glycol solvent used in the liquid coolant is ethylene glycol.

Claim 34 (withdrawn): The method of claim 27 additionally comprising essentially isolating the liquid coolant in the circulation loop from air.